## ABSTRACT OF THE DISCLOSURE

Aluminum chloride is removed effectively from compound mixtures containing organochlorosilanes such as are produced in the direct synthesis, by adding a diluent containing organochlorosilanes and optionally chloromethane to a solids content < 15% and a concentration of compounds having a boiling point  $> 71^{\circ}\text{C}$  of less than 25%, and evaporating this diluted mixture into a volatile product stream and an AlCl<sub>3</sub> - containing solid.